IN THE CLAIMS

Claims 1-21 (canceled).

22.   (currently amended) An object tracking method for detecting and tracking a moving ~~an~~ object in a picked-up image based on an image signal acquired by an imaging unit, comprising the steps of:

a) producing a template image cut out from the image acquired from said imaging unit so as to include a part of said object;

b) conducting a template matching by calculating correlations between a present image from said imaging unit and said template image, detecting a position of a part of said present image matched with said template image, and updating a position of a current template image by said detected position;

c) detecting an image changing area between at least two frames of images picked up at different time points by said imaging unit;

d) ~~detecting and updating a~~ correcting said detected position of said object to a new position in which said ~~based on said detected~~ image changing area is detected in a manner different from the detecting of a position of the part of said present image matched with said template image according to said template matching of said step b; and

e) updating a template image by an image output as a new template image based on the updated position of said object, wherein said step b to said step e are repeatedly executed while tracking the object.

23.   (currently amended) An object tracking method according to claim 22, wherein in said step c~~d) includes a substep of detecting, within an~~ ~~area expanded predetermined pixels from the current template, a position of~~

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~~area having a greatest difference or a difference equal to or larger than a~~ ~~predetermined value between the said two frames as said position of said~~ ~~object~~ said image changing area is detected as an area having a greatest amount or an amount equal to or larger than a predetermined amount in accumulated value of a pixel different in the area.

24.   (currently amended) An object tracking method according to claim 22, wherein said step c~~d)~~ includes a sub-step of setting a search area for detecting image changing area near ~~the position of said object based on~~ the position of said current template image~~, and detecting an area having a~~ ~~greatest difference or a difference equal to or larger than a predetermined~~ ~~value between the said two frames as said position of said object in said set~~ ~~search area~~.

25.   (currently amended) An object tracking method according to claim 24, wherein said step d) includes a sub-step of enlarging or moving said set search ~~range~~ area stepwise.

26.   (previously presented) An object tracking apparatus for detecting and tracking a moving ~~an~~ object in a picked-up image based on an image signal acquired by an imaging unit, comprising:

an image input unit which produces a template image cut out from the image acquired from said imaging unit so as to include a part of said object; and

a processing unit which conducts a template matching by calculating correlations between a present image from said image input unit and said template image, detects a position of a part of said present image matched with said template image, and updates a position of a current template image by said detected position,

wherein said processing unit further detects an image changing area between at least two frames of images picked up at different time points by said imaging unit, corrects said detected ~~detects and updates a~~ position of said object to a new position in which said ~~based on said detected~~ image changing area is detected in a manner different from the detection of a position of the part of said present image matched with said template image, and updates a template image by an image output as a new template image based on the updated position of said object, and

wherein said processing unit repeatedly executes the template matching, detecting said position of said part, detecting said image changing area, correcting said detected position and updating said template image processings while tracking the object.

27.   (previously presented) An object tracking apparatus according to claim 26, wherein said processing unit in said detecting said image changing area processing, said image changing area is detected as an area having a greatest amount or an amount equal to or larger than a predetermined amount in accumulated value of a pixel different in the area~~sets a search area for detecting the position of said object based on the position of said current template image, and detects an area having a greatest difference or a~~

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difference equal to or larger than a predetermined value between the said two frames as said position of said object in said set search area.

28.   (previously presented) An object tracking apparatus according to claim 26, wherein said processing unit sets a search area for detecting the position of said object based on image changing area near the position of said current template image, and detects an area having a greatest difference or a difference equal to or larger than a predetermined value between the said two frames as said position of said object in said set search area.

29.   (previously presented) An object tracking apparatus according to claim 28, wherein said processing unit enlarges or moves said set search area range stepwise.

30.   (new) An object tracking method according to claim 24, wherein said search area is enlarged within predetermined pixels until any amount equal to or large than said predetermined amount is detected.

31.   (new) An object tracking method according to claim 24, wherein said new position is a position of an area having a same size as a size of said template image cut out in said step a.

32.   (new) An object tracking method according to claim 24, wherein said step d includes sub-steps of:

calculating inline-accumulated values of pixel differences projected on X or Y axis within said search area; and

calculating a sum of said inline-accumulated values over a range of width or height of said image changing area to be detected.

33.   (new) An object tracking apparatus according to claim 26, wherein said search area is enlarged within predetermined pixels until any amount equal to or large than said predetermined amount is detected.

34.   (new) An object tracking apparatus according to claim 26, wherein said new position is a position of an area having a same size as a size of said template image cut out.

35.   (new) An object tracking apparatus according to claim 26, wherein said correcting said detected position processing performed by said processing units includes sub-steps of:

calculating inline-accumulated values of pixel differences projected on X or Y axis within said search area; and

calculating a sum of said inline-accumulated values over a range of width or height of said image changing area to be detected.